KUS660 Series

Solar Powered Wireless Ultrasonic Level Sensor

Version Number	Content	Producer	Reviewer	Time
V0.1	Compiling this instruction manual	Han Wenchao	Han Wenchao	2024.11.20

Introduction

The KUS660 series solar-powered intelligent wireless digital ultrasonic level sensor is a product with solar power supply and wireless remote transmission launched by Kacise. It is developed through precise digital temperature compensation and non-linear correction technologies to ensure high precision and high stability in measurement. To facilitate customers' outdoor use of the sensor, a rechargeable lithium battery is built into the product. It is rainproof outdoors and equipped with a universal bracket for convenient outdoor installation. It features no need for external power supply, easy maintenance, and the ability to query data at any time.

The built-in wireless module utilizes the network to provide users with wireless long-distance and low-power data transmission. It sends all the status data of the sensor to the cloud-based back-end management server in real time, realizing alarm linkage with the intelligent cloud platform and data statistical analysis.

Features

- Real-time monitoring of level data through networked devices
- Self-powered, no external power supply required, simple installation, not afraid of rain, convenient for outdoor use.
- Supports driving multiple sensors at the same time.
- Supports remote configuration parameters to minimize maintenance costs.
- Supports various IoT platforms.
- Large battery capacity, low power consumption, can continue to work on cloudy days.
- Supports customized communication mode.
- High sensitivity, high resolution, with temperature compensation function.
- The sensor part is a PVDF casing, resistant to corrosion environment, can be customized to IP68 protection level, no fear of immersion.

Applications

The KUS660 series is used to indicate and monitor the changes in sensor values at the installation site. It uploads real-time data to the centralized management platform through the built-in wireless transmission module, facilitating intelligent centralized management by users. It is mainly applied in the following industries:

- Aquaculture
- Sewage treatment
- Food industry
- Industrial storage tanks
- Water supply systems
- Mining distance measurement
- Chemical and energy industries
- Paper mills

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Technical Parameters

Solar Wireless Module	
Acquisition Interface	RS485
External Output Voltage	5V / 12V @1A
Solar Panel Power	4.2W
Power of the Module	≤3W
Battery Capacity	4Ah（expandable.）
Communication	4G default. WiFi/LoRa can be customized.
Dimensions	175×165×45mm
Protection Level	IP65
Temperature Range	-20℃~60℃
Ultrasonic Level Sensor	
Measurement Range	Max.15m
Accuracy	±0.5%~±1%FS
Temperature Range	-40℃~85℃
Communication	RS485
Output	4 - 20 mA, 0 - 10 V, 0 - 5 V, relay
Power Supply	3.3~30VDC
Protection Level	IP65 (IP68 can be customized).
Casing Material	PVDF (default) / PVC / PTFE
Resolution	0.1mm
Temperature Compensation	Support
Installation Thread	NPT1

Note: Please explain any special requirements to the sales staff before making a purchase and clearly indicate them on the order.

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Installation and Maintenance

1. Installation

(1) The level sensor should be installed perpendicular to the measured liquid surface/object surface.
(2) The level sensor needs to be installed in a shaded place to avoid direct sunlight.
(3) The cables should be protected with protective sleeves during installation.
(4) The solar module should not be placed in a place where it may be flooded by water.
(5) The solar module needs to be placed in a place with direct sunlight.

2. Maintenance

(1) Solar panel needs to be cleaned regularly to avoid affecting the power supply of the solar panels.
(2) Regularly check whether the installation is firm.
(3) The ultrasonic probes need to be cleaned regularly to avoid affecting the measurement results.

Storage and Transportation

(1) The products should be stored in a warehouse with a temperature range of -20°C to 60°C, air humidity not exceeding 90%, good ventilation, dry and free of corrosive gases.
(2) The product, together with the certificate of conformity and the operation manual, should be packed in the same package. Collisions are strictly prohibited during transportation.

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